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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/753,868	01/08/2004	Todd S. Emrick	7165	6133
22922 7590 01/28/2008 REINHART BOERNER VAN DEUREN S.C. ATTN: LINDA KASULKE, DOCKET COORDINATOR 1000 NORTH WATER STREET SUITE 2100 MILWAUKEE, WI 53202			EXAMINER HENLEY III, RAYMOND J	
			ART UNIT 1614	PAPER NUMBER
			MAIL DATE 01/28/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/753,868

Applicant(s)

EMRICK ET AL.

Examiner

Raymond J. Henley III

Art Unit

1614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 1-17, 23 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-20, 22, 25-29, 31 and 32 is/are rejected.
- 7) ☒ Claim(s) 21 and 30 is/are objected to.
- 8) ☒ Claim(s) 1-32 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11/8/04 & 2/25/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

CLAIMS 1-32 ARE PRESENTED FOR EXAMINATION

Applicants' "Response to Restriction Requirement" filed November 5, 2007 has been received and entered into the application file.

Election/Restriction

Responsive to the requirement for restriction and election of species set forth in the Office Action dated October 3, 2007, Applicants have elected, the invention of Group II, claims 18-32. Further, Applicants have elected the substrate/ligand species as tri-n-octylphosphine oxide and metal selenide, respectively.

Because Applicants have not pointed out any particularly supposed errors in the Examiner's requirement, the election of invention is taken without traverse, thereby dismissing Applicants' right to petition the Examiner's action.

Claims 18-22 and 25-32 read on the elected species and are herein acted on the merits.

Scope of Search

The Examiner has searched for, but not been able to find a reference teaching the elected species. However, given the extreme breadth of the remaining subject matter, i.e. the terms "ligand" and "substrate", the Examiner makes no warranty that the entirety of such subject matter was able to be searched in his search in the prior art. The Examiner's search extended to the terms "ligand", "substrate" and "nanoparticle"/"nanoparticles" appearing in the same document. Further, a search for a representative number of disclosed species of ligand and substrate was only possible because of the manner in which Applicants wish to claim their invention.

Claim Objection

Claims 21 and 30 are objected to as depending from a rejected base claim, (note *infra*), but are otherwise in condition for allowance.

Claim Rejection - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 18-20 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Carnes et al., (U.S. Patent Application Publication No. 2004/0067159, cited by the Examiner).

Carnes et al. teach a composition comprising a liquid emulsion, (see claim 12 and paragraph [0009]), wherein the emulsion contains a liquid carrier, including a hydrophobic/hydrophilic phase, (i.e., by definition of an emulsion), and the nanoparticles which contain a ligand, (i.e., a biocide) and a substrate, (e.g., metallic compounds), (e.g., see claims 1-4).

While the reference does not disclose, as in Applicant's present claim 22, that a "reactive agent" is present that is reactive with "said ligand component", such is deemed nevertheless present as the components of the composition of Carnes et al. would necessarily have to be "reactive" in some sense, whether expressly disclosed or not.

Accordingly, for the above reasons, the claims are deemed properly rejected.

Claim Rejection - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25-29 and 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carnes et al., (U.S. Patent Application Publication No. 2004/0067159, cited by the Examiner), for the reasons of record as set forth above, which reasons are here incorporated by reference.

The differences between the above and the claimed subject matter is that the reference does not expressly disclose “a therapeutic agent” also being present in the composition or the presently claimed relationships between the “reactive functionality” of the nanoparticles.

However, the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains because the additional agents taught by the reference, including the additional metals, could reasonably be considered as “therapeutic agents” in the conventional sense. Also, because the physical relationships of the agents of the nanoparticles of the prior art are no different than the presently claimed agents, such a “reactive” relationship would appear to be necessarily present, whether disclosed or not.

Accordingly, for the above reasons, the claims are deemed properly rejected.

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None of the claims are currently in condition for allowance.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond J. Henley III whose telephone number is 571-272-0575. The examiner can normally be reached on M-F, 8:30 am to 4:00 pm Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin H. Marschel can be reached on 571-272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Raymond J Henley III
Primary Examiner
Art Unit 1614

January 20, 2008